

## **ABSTRACT**

### **ASSAY CUSTOMIZATION**

Systems for customization of assays. The method includes steps of collecting case samples representing a clinical phenotypic state and control samples representing patients without said clinical phenotypic state. Preferably the system uses a mass spectrometry platform system to identify patterns of polypeptides in said case samples and in the control samples without regard to the specific identity of at least some of said polypeptides. Based on identified representative patterns of the state, the system performs optimized assays for greater sensitivity, specificity, and/or cost effectiveness.